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FOURTEENTH PROGRESS REPORT

on

CALIBRATION AND EVALUATION OF SKYLAB ALTIMETRY FOR  
GEODETIC DETERMINATION OF THE GEOID (Contract NAS9-13276,  
EPN 440) April 1 to April 30, 1974

to

NASA Johnson Space Center  
Principal Investigation Management Office  
Houston, Texas 77058

from

BATTELLE  
Columbus Laboratories

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Z. H. Byrns, Code TF6 - NASA/JSC Technical Monitor

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Documents and data received and reviewed during this period are listed in Appendix A.

### DATA PROCESSING RESULTS

The significant results of our past effort which have not been previously reported are in the formal write up attached as Appendix B.

### CONCLUSION

Appendix B contains the technical conclusions that have not been previously reported.

The research findings reported in Appendix B constitute a valuable contribution arising from Skylab S-193 Altimeter EREP investigation. The research was necessitated by several implicit problems we identified during data processing and analysis in this project. The findings should be of great importance to future implementation planning of the applications of satellite altimetry to Earth and ocean physics problems such as in GEOS-C and SEASAT programs.

### PROBLEMS

The most important problem delaying our progress is that the SKYBET data tapes we requested have not yet been received. We need the SKYBET ephemeris or any other better ephemeris such as is being computed at NASA/Wallops.

### RECOMMENDATIONS

Recommendations made in the last three progress reports remain valid.

In view of all the data delays and various problems previously reported, contract extension on this project is very necessary for effective completion of the investigations. Battelle will like to have a formal notification of any extension in advance of the current termination date.

NEXT PERIOD AND SUMMARY OUTLOOK

We plan to continue processing and analysis of both SL-2 and SL-4 data as the relevant data we requested come in.

TRAVEL

During this reporting period, travel was made to Washington, D.C., to present, as recommended by the Technical Monitor, results reported in progress reports. The presentation entitled "Preliminary Geodetic Processing Results of the Skylab SL-2 Altimeter Data and Potential Applications" was for a special EREP session during the annual meeting of the American Geophysical Union in Washington, D.C., April 12, 1974. Due to health reasons of Mr. A. G. Mourad, the Principal Investigator, the paper was presented by Dr. D. M. Fubara, the Co-Investigator.